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## ANNOTATED CHECKLIST OF RECENT LAND MAMMALS OF TEXAS, 2008

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### ABSTRACT

In this checklist we present information that pertains to the distribution and natural history of known Texas mammals. Since the last edition of the “checklist” several important taxonomic and nomenclatorial changes affecting Texas mammals have been published. Of special note are changes to bats formerly known as pipistrelles, short-tailed shrews of the genus *Blarina*, hog-nosed skunks, and feral burros.

Key words: mammal checklist, mammalian distribution, Texas mammals

### INTRODUCTION AND METHODS

Schmidly (2004) published a comprehensive work on Texas mammals. We follow his phylogenetic listing of mammalian taxa, by order, family, and genus (unless otherwise noted). Within genera, species and recognized subspecies are listed alphabetically. The approximate known geographic distribution within the state of Texas (see maps in Schmidly 2004) is reported for each mammal and pertinent comments and/or citations about that taxon may be included. Species marked with an asterisk (\*) are exotic species, i.e., introduced from outside the United States. This checklist is an

updated version of three previous lists of Texas mammals (Jones et al. 1988; Jones and Jones 1992; Manning and Jones 1998). We hope this will serve as a valuable resource for biologists, students, and other concerned professionals.

We follow Baker et al. (2003) in many of their suggested nomenclatorial and taxonomic changes. The reader is referred to that document and the citations listed therein for further information or clarification.

### ORDER DIDELPHIMORPHIA—OPOSSUMS

#### Family Didelphidae (opossums)

*Didelphis virginiana* (Virginia opossum).—Occurs throughout most of Texas except in relatively

xeric areas in Trans-Pecos (Schmidly 2004). The subspecies are *D. v. virginiana* Kerr 1792 in northern and central Texas, and *D. v. pigra* Bangs 1898 in the south and southeast.

## ORDER CINGULATA—ARMADILLOS

### **Family Dasypodidae** (armadillos)

*Dasypus novemcinctus* (nine-banded armadillo).—We follow Wilson and Reeder (2005) in the use of this ordinal name. Armadillos occur throughout much of

state; absent only from most of Trans-Pecos (Schmidly 2004). The armadillo only recently has been recorded in the Davis Mountains (Kennedy and Jones 2006). The subspecies is *D. n. mexicanus* Peters 1864.

## ORDER SORICOMORPHA—SHREWS AND MOLES

### **Family Soricidae** (shrews)

*Blarina carolinensis* (southern short-tailed shrew).—We follow Wilson and Reeder (2005) in the use of this ordinal name for soricids and talpids. These shrews are known from eastern fourth of Texas (Schmidly 2004). The subspecies are *B. c. carolinensis* (Bachman 1837) in the north (south at least to Nacogdoches County) and *B. c. minima* Lowery 1943 in the south.

*Blarina hylophaga* (Elliot's short-tailed shrew).—Recorded only from Montague and Bastrop counties and from Aransas National Wildlife Refuge, Aransas County (Schmidly 2004). Until recently, the shrews from Montague and Bastrop counties were considered to represent the subspecies *B. h. hylophaga* Elliot 1899; whereas, those from Aransas County were assigned to *B. h. plumbea* Davis 1941. Reilly et al. (2005) presented data on these rare enigmatic shrews that suggest those populations from both Aransas and Bastrop counties should be referred to as *B. h. plumbea*.

*Cryptotis parva* (least shrew).—Occurs in eastern, southern, and northwestern parts of Texas. Not known from Trans-Pecos, southern Llano Estacado, and most of the Edwards Plateau (Goetze 1998; Schmidly 2004). Recently Poole and Matlock (2007) reported specimens from Ochiltree and Carson counties in the

Texas Panhandle. The subspecies are *C. p. parva* (Say 1823) throughout most of the distribution in Texas, and *C. p. berlandieri* (Baird 1858) on the Rio Grande Plains.

*Notiosorex crawfordi* (desert shrew).—Recorded from western two-thirds of state, east at least to Archer and Wichita counties in the north, and southwardly to Refugio County on the Gulf Coast (Schmidly 2004). Poole and Matlock (2007) reported specimens from Armstrong County in the Texas Panhandle. The subspecies is *N. c. crawfordi* (Coues 1877).

### **Family Talpidae** (moles)

*Scalopus aquaticus* (eastern mole).—Presently known from approximately eastern two-thirds of state, west along Canadian River in Panhandle, near the New Mexico border, and to eastern edge of Llano Estacado (Schmidly 2004). Also known from a single specimen from Presidio County (Schmidly 2004). Five subspecies currently are thought to occur in Texas: *S. a. aereus* (Bangs 1896) in the extreme east and also the Panhandle region; *S. a. allenii* Baker 1951 in south-central Texas; *S. a. cryptus* Davis 1942 in the east-central part of the state; *S. a. inflatus* Jackson 1914 on the southern part of the Rio Grande Plains; and *S. a. texanus* (J. A. Allen 1891), an enigmatic race known from Presidio County by a single specimen taken in 1887.

**ORDER CHIROPTERA—BATS****Family Mormoopidae**  
(leaf-chinned bats)

*Mormoops megalophylla* (ghost-faced bat).—Previously known only from Apache Mountains in Culberson County, southern Trans-Pecos, southern part of Edwards Plateau, and southern Texas (Cameron and Hidalgo counties) (Schmidly 2004). Recent field work documented the presence of this bat in the Chinati Mountains of Presidio County, as well as the Davis Mountains of Jeff Davis County (DeBaca and Jones 2002), and Elephant Mountain Wildlife Management Area of Brewster County (Bradley et al. 1999). The subspecies is *M. m. megalophylla* (Peters 1864).

**Family Phyllostomidae**  
(New World leaf-nosed bats)

*Choeronycteris mexicana* (Mexican long-tongued bat).—Known by photographs of a single individual from Santa Ana National Wildlife Refuge, Hidalgo County, a specimen from Laguna Atascosa, Cameron County, and one specimen from Midland County (Schmidly 2004). These records probably represent accidental northward occurrences of this bat. *C. mexicana* Tschudi 1844 is a monotypic species.

*Leptonycteris nivalis* (Mexican long-nosed bat).—Recorded only from Big Bend area in southern Trans-Pecos region (Brewster and Presidio counties) (Schmidly 2004). *L. nivalis* (Saussure 1860) is a monotypic species.

*Diphylla ecaudata* (hairy-legged vampire).—Known only by single extralimital record from Val Verde County (Schmidly 2004). *D. ecaudata* Spix 1823 is a monotypic species.

**Family Vespertilionidae**  
(vesper bats, vespertilionid bats)

*Myotis austroriparius* (southeastern myotis).—Known range includes extreme eastern Texas, from Bowie County southward to Harris and Orange counties. There is a single extralimital record from Comanche County, far west of its previously known

distribution (Schmidly 2004). The subspecies is *M. a. austroriparius* (Rhoads 1897).

*Myotis californicus* (California myotis).—Recorded in Texas only from Trans-Pecos region and from one specimen from Canyon, Randall County, near the breaks of Llano Estacado (Schmidly 2004). Other specimens have been reported from along the edge of the Llano in adjacent New Mexico (Choate 1997). The subspecies is *M. c. californicus* (Audubon and Bachman 1842).

*Myotis ciliolabrum* (western small-footed myotis).—Saxicolous species known from western half of Trans-Pecos and from Armstrong and Randall counties in Panhandle (Schmidly 2004). The subspecies is *M. c. ciliolabrum* (Merriam 1886).

*Myotis occultus* (southwestern little brown myotis).—Reported from Texas on basis of single specimen from Fort Hancock, Hudspeth County (Schmidly 2004). Formerly considered to be *M. lucifugus*. *Myotis occultus* Hollister 1909 is a monotypic species.

*Myotis septentrionalis* (northern long-eared myotis).—Known only from a single specimen from Winterhaven, Dimmit County (Schmidly 2004). *M. septentrionalis* (Trouessart 1897) is a monotypic species.

*Myotis thysanodes* (fringed myotis).—Reported from much of Trans-Pecos region and from Crosby County at eastern edge of Llano Estacado (Schmidly 2004). The subspecies is *M. t. thysanodes* Miller 1897.

*Myotis velifer* (cave myotis).—Occurs over most of western part of state, east at least to Wichita County in the north and to (north to south) McLennan, Milam, Bastrop, Nueces, Kleberg, and Hidalgo counties in central and southern. In addition, there is an extralimital record from Dallas County to the east (Schmidly 2004). The subspecies are *M. v. incautus* (J. A. Allen 1896) in the south and *M. v. magnamolaris* Choate and Hall 1967 northwestwardly.

*Myotis volans* (long-legged myotis).—Known from central Trans-Pecos Texas and by an enigmatic specimen from Knox County, far to the northeast (Schmidly 2004). The subspecies is *M. v. interior* Miller 1914.

*Myotis yumanensis* (Yuma myotis).—Recorded from southern Trans-Pecos region and from just east of Pecos River in Val Verde County; there also is a record from Starr County far to the southeast on the Rio Grande Plains (Schmidly 2004). The subspecies is *M. y. yumanensis* (H. Allen 1864).

*Lasiurus blossevillii* (western red bat).—Only recently recognized as distinct from *L. borealis*; known in Texas by a single specimen from Sierra Vieja Mountains, Presidio County (Schmidly 2004). The subspecies is *L. b. teliotis* (H. Allen 1891).

*Lasiurus borealis* (eastern red bat).—Statewide in suitable wooded habitats, but uncommon westwardly; migratory, but some individuals probably over-winter in Texas (Schmidly 2004). *L. borealis* (Müller 1776) is a monotypic species.

*Lasiurus cinereus* (hoary bat).—Statewide as migrant in spring and autumn. Additionally, it is possible that some females bear and raise young in Texas in late spring and summer (Schmidly 2004). The subspecies is *L. c. cinereus* (Palisot de Beauvois 1796).

*Lasiurus ega* (southern yellow bat).—Known in Texas from Rio Grande Valley in Cameron County northward along Gulf Coast to Aransas County (Schmidly 2004). The subspecies probably is *L. e. panamensis* (Thomas 1901).

*Lasiurus intermedius* (northern yellow bat).—Occurs only in southeastern part of state, from Lamar County in the north to Bexar County in the west to Cameron County in the south (Schmidly 2004). The subspecies are *L. i. intermedius* H. Allen 1862 from Victoria County southward, and *L. i. floridanus* (Miller 1902) from Bexar County eastward, north at least to Lamar County.

*Lasiurus seminolus* (Seminole bat).—In Texas, known from eastern part of state, west to Coryell,

Williamson, and Travis counties. In addition, there is a record from Val Verde County far to the west (Schmidly 2004). *L. seminolus* (Rhoads 1895) is a monotypic species.

*Lasiurus xanthinus* (western yellow bat).—Reported recently from the Big Bend Region of West Texas and Black Gap Wildlife Management Area, Brewster County. Also reported from the Davis Mountains in Jeff Davis County, and east of the Pecos River in Val Verde County (Schmidly 2004). *Lasiurus xanthinus* (Thomas 1897) is a monotypic species.

*Lasionycteris noctivagans* (silver-haired bat).—Occurs statewide as migrant in spring and autumn (Schmidly 2004). This bat recently has been taken in the Chisos Mountains, Big Bend National Park (Ammerman 2005). *L. noctivagans* Le Conte 1831 is a monotypic species.

*Parastrellus hesperus* (American parastrelle).—We follow Hoofer et al. (2006) in the use of *Parastrellus* as the correct genus of this bat, which formerly was known as *Pipistrellus hesperus*. In addition we apply the common name American parastrelle in place of western pipistrelle. Widely distributed in suitable rocky habitats in Trans-Pecos region; also occurs eastward to Knox, Haskell, and Uvalde counties and northward along eastern escarpment of Llano Estacado at least to Randall, Briscoe, and Floyd counties (Schmidly 2004). The subspecies is *P. h. maximus* Hatfield 1936.

*Perimyotis subflavus* (American perimyotis).—We follow Hoofer and Van Den Bussche (2003) in the use of the generic name *Perimyotis* in place of its formerly assigned genus *Pipistrellus*. We use the common name American perimyotis to replace eastern pipistrelle. Known from much of eastern and central Texas, westward to breaks of Llano Estacado and Val Verde County, and south to Padre Island and Cameron County (Schmidly 2004). The subspecies are *P. s. subflavus* (F. Cuvier 1832) over much of the range of the species in the state and *P. s. clarus* Baker 1954 in the extreme southwest. There is one specimen known from Lubbock County and an extralimital specimen from Big Bend Ranch State Park in Presidio County (Schmidly 2004). Geluso et al. (2005) reported this bat from ZH Canyon, in far West Texas (Presidio County).

*Eptesicus fuscus* (big brown bat).—Widely distributed over most of eastern and western parts of state; curiously, unrecorded from much of central and southern Texas (Schmidly 2004). The subspecies are *E. f. fuscus* (Palisot de Beauvois 1796) in the east and northwest, and *E. f. pallidus* Young 1908 in the Trans-Pecos (Jones and Manning 1990).

*Nycticeius humeralis* (evening bat).—Occupies approximately eastern half of state, westward to include (north to south) Palo Pinto, Tom Green, and Val Verde counties. There also are extralimital records from Midland and Presidio counties in the west (Schmidly 2004). The subspecies is *N. h. humeralis* (Rafinesque 1818).

*Euderma maculatum* (spotted bat).—Recorded only from Big Bend National Park, but to be looked for elsewhere in Trans-Pecos region (Schmidly 2004). *E. maculatum* (J. A. Allen 1891) is a monotypic species.

*Corynorhinus rafinesquii* (Rafinesque's big-eared bat).—Occurs only in extreme eastern Texas, the westernmost records being from Montgomery, Walker, Nacogdoches, and Polk counties (Schmidly 2004). The subspecies is *C. r. macrotis* Le Conte 1831.

*Corynorhinus townsendii* (Townsend's big-eared bat).—Cavernicolus species known from approximately western half of state, eastward at least to Baylor and Kimble counties (Schmidly 2004). The subspecies is *C. t. pallescens* (Miller 1897).

*Antrozous pallidus* (pallid bat).—Common resident in western half of state, with an extralimital record from Cameron County in the extreme southeast (Schmidly 2004). The subspecies recorded from most of the range in Texas is *A. p. pallidus* (Le Conte 1856),

but *A. p. bunkeri* Hibbard 1934 occurs in the vicinity of the Red River and in the Panhandle.

### Family Molossidae (free-tailed bats)

*Tadarida brasiliensis* (Brazilian free-tailed bat).—Statewide in warm months; most individuals of western and central populations migrate southward in winter, but populations in extreme eastern Texas frequently are resident year round (Schmidly 2004), as are some populations in Trans-Pecos (see Yancey 1997). The currently recognized subspecies are *T. b. cynocephala* (Le Conte 1831) in the eastern fourth of the state and *T. b. mexicana* (Saussure 1860) elsewhere. However, the systematics of these two taxa warrant further study, as they possibly represent distinct species.

*Nyctinomops femorosaccus* (pocketed free-tailed bat).—Recorded in state only from Big Bend area (Schmidly 2004); to be looked for elsewhere in Trans-Pecos region. *N. femorosaccus* (Merriam 1884) is a monotypic species.

*Nyctinomops macrotis* (big free-tailed bat).—Known from western part of state only as seasonal migrant, except for breeding population in Big Bend National Park in warm months; migrants also recorded from Brazos, Matagorda, and San Patricio counties (Schmidly 2004). *N. macrotis* (Gray 1839) is a monotypic species.

*Eumops perotis* (western mastiff bat).—Known as summer resident from Brewster, Presidio, and Val Verde counties; winter range unknown (Schmidly 2004). The subspecies is *E. p. californicus* (Merriam 1890).

## ORDER PRIMATES—PRIMATES

### Family Cercopithecidae (Old World monkeys)

\**Macaca fuscata* (Japanese macaque).—Old World monkeys are included here because, “There

are reliable reports of free-ranging groups of Japanese macaques in South Texas” (Jones et al. 1997:2). Many records center around or probably originated from near Dilley, in Frio County (Jones et al. 1997).

## ORDER CARNIVORA—CARNIVORES

### **Family Canidae** (dogs, foxes, and wolves)

\**Canis familiaris* (feral dog).—Feral animals common in many parts of Texas, especially eastwardly.

*Canis latrans* (coyote).—Known from variety of habitats statewide (Schmidly 2004). The subspecies are *C. l. latrans* Say 1823 in the Panhandle, *C. l. texensis* Bailey 1905 in the western half of the state south of the Panhandle, and *C. l. frustror* Woodhouse 1851 in the eastern half of Texas.

*Canis lupus* (gray wolf).—Once ranged throughout western part of state; now extirpated (Schmidly 2004).

*Canis rufus* (red wolf).—Original range included eastern half of state; now extirpated (Schmidly 2004).

*Vulpes velox* (swift fox).—Known from the western third of state (Schmidly 2004). The subspecies are *V. v. neomexicana* Merriam 1902 in the arid and semi-arid regions of the Trans-Pecos and southwestern part of Edwards Plateau, and *V. v. velox* (Say 1823) in the Panhandle and southern Llano Estacado. These two foxes may be specifically distinct.

\**Vulpes vulpes* (red fox).—Introduced in eastern and central Texas beginning in about 1895. Occurs in most of state except far western and southern regions (Schmidly 2004). The subspecies is *V. v. fulva* (Desmarest 1820).

*Urocyon cinereoargenteus* (common gray fox).—Occurs throughout state (Schmidly 2004). The subspecies are *U. c. floridanus* Rhoads 1895 east of the Balcones Fault Zone, and *U. c. scottii* Mearns 1891 in the western two-thirds of the state.

### **Family Ursidae** (bears)

*Ursus americanus* (black bear).—Once widespread in state; now found only in isolated, montane

habitats of the Trans-Pecos (Schmidly 2004). The subspecies is *U. a. amblyceps* Baird 1859.

*Ursus arctos* (grizzly or brown bear).—Recorded from Davis Mountains, Jeff Davis County, and from along the Red River in Montague County. Now extirpated (Schmidly 2004).

### **Family Procyonidae** (raccoons, ringtails and coatis)

*Bassariscus astutus* (ringtail).—Occurs throughout state (Schmidly 2004). The subspecies is *B. a. flavus* Rhoads 1894.

*Procyon lotor* (northern raccoon).—Ubiquitous throughout state (Schmidly 2004). The subspecies are *P. l. hirtus* Nelson and Goldman 1930 in the Panhandle north of the Canadian River, *P. l. mexicanus* Baird 1858 in the western part of the Trans-Pecos, and *P. l. fuscipes* Mearns 1914 throughout the remainder of the state.

*Nasua narica* (white-nosed coati).—Limited to southwestern and extreme southern parts of state (Schmidly 2004). The subspecies in Texas is *N. n. molaris* Merriam 1902.

### **Family Mustelidae** (mustelids)

*Mustela frenata* (long-tailed weasel).—Occurs statewide, except for the northern Panhandle (Schmidly 2004). The subspecies include: *M. f. neomexicana* (Barber and Cockerell 1898) mostly west of the 100th meridian; *M. f. texensis* Hall 1936 in the central part of the state; *M. f. primulina* Jackson 1913 in the extreme northeastern part of Texas; *M. f. arthuri* Hall 1927 east of the Balcones Fault Zone in east-central and southeastern areas; and *M. f. frenata* Lichtenstein 1831 in the southern part of the state along the Gulf Coast and adjacent to Mexico.

*Mustela nigripes* (black-footed ferret).—Once occurred in about northwest third of state. Now extirpated (Schmidly 2004).

*Mustela vison* (American mink).—Known from approximately eastern half of state, with an extralimital record from Hansford County (Schmidly 2004). The subspecies is *M. v. mink* Peale and Palisot de Beauvois 1796.

*Taxidea taxus* (American badger).—Found across state except in extreme eastern part (Schmidly 2004). The subspecies is *T. t. berlandieri* Baird 1858.

*Lontra canadensis* (northern river otter).—Presently known only from about eastern fourth of state in major watersheds; known from Wheeler County in the Panhandle, few records from north-central, and southern Texas (Schmidly 2004). The subspecies is *L. c. lataxina* (F. Cuvier 1823).

#### Family Mephitidae (skunks)

*Spilogale gracilis* (western spotted skunk).—Recorded from southwestern part of state, north as far as Garza and Howard counties, and eastward to Bexar and Duval counties (Schmidly 2004). The subspecies is *S. g. leucoparia* Merriam 1890.

*Spilogale putorius* (eastern spotted skunk).—Occurs in eastern part of state, eastern Edwards Plateau, north-central Texas, and the Panhandle as far south as Garza County (Schmidly 2004). The subspecies is *S. p. interrupta* (Rafinesque 1820).

*Mephitis macroura* (hooded skunk).—Known only from Big Bend area and adjacent parts of central Trans-Pecos, northward to Reeves and Ward counties (Schmidly 2004). *M. m. milleri* Mearns 1897 is the subspecies.

*Mephitis mephitis* (striped skunk).—Common throughout state (Schmidly 2004). *M. m. varians* Gray 1837 occurs in the western part of Texas, whereas *M. m. mesomelas* Lichtenstein 1832 is found east of the 100th meridian.

*Conepatus leuconotus* (hog-nosed skunk).—Formerly two species of hog-nosed skunks were recognized in Texas; they now are considered conspecific. This taxon ranges across most of the state from

southern Texas (Rio Grande Valley) across the central plateau region and into the northwestern and western part of the Texas (Schmidly 2004). The subspecies currently recognized from the state is *C. l. leuconotus* (Lichtenstein 1832).

#### Family Felidae (cats)

\**Felis catus* (feral cat).—Feral animals fairly common statewide.

*Puma concolor* (mountain lion).—Once ranged throughout state; now known with certainty, except for occasional occurrences northward, only in desert mountain ranges of Trans-Pecos region, especially in Big Bend National Park, on parts of Edwards Plateau, and in dense brushlands of Rio Grande Plains (Schmidly 2004). The subspecies is *P. c. stanleyana* (Goldman 1938).

*Puma yagouaroundi* (jaguarundi).—We follow Wilson and Reeder (2005) in the use of this name combination. Recorded in Texas only from Cameron, Hidalgo, Starr, and Willacy counties (Schmidly 2004). *P. y. cacomitli* (Berlandier 1859) is the recognized subspecies.

*Leopardus pardalis* (ocelot).—Currently ranges from Cameron, Willacy, and Hidalgo counties in extreme South Texas. Formerly known from much of South Texas, from Brewster County in the west to Jefferson County in the east. Extralimital records exist from Donley, McLennan, and Falls counties in north (Schmidly 2004). The subspecies is *L. p. albescens* (Pucheran 1855).

*Leopardus wiedii* (margay).—Known only from specimen taken in Maverick County in 1850s; probably now extirpated in state (Schmidly 2004).

*Lynx rufus* (bobcat).—Occurs in variety of habitats throughout state (Schmidly 2004). The subspecies is *L. r. texensis* J. A. Allen 1895.

*Panthera onca* (jaguar).—Once ranged northward into central Texas as far as Mills County and along Gulf Coast; now extirpated in the state (Schmidly 2004).

**ORDER ARTIODACTYLA—EVEN-TOED UNGULATES****Family Suidae**  
(pigs)

\**Sus scrofa* (feral pig).—Sizeable populations of pigs occur in various places across state (Schmidly 2004).

**Family Tayassuidae**  
(peccaries)

*Pecari tajacu* (collared peccary).—Once distributed north to Red River and east at least to Brazos River Valley; now restricted to western Texas and brush country south of San Antonio; an introduced population occurs in numerous counties in north-central part of state (Schmidly 2004). The subspecies is *P. t. angulatus* (Cope 1889).

**Family Cervidae**  
(deer)

\**Cervus axis* (axis deer).—Native of India; introduced into Texas in approximately 1932, and now occurs in a number of counties in central and southern parts of state (Schmidly 2004).

\**Cervus dama* (fallow deer).—Native of Mediterranean region of Europe and Asia Minor. This exotic ungulate occurs in Texas, mostly on the Edwards Plateau and adjacent areas (Schmidly 2004).

*Cervus elaphus* (wapiti or elk).—Native to Guadalupe Mountains prior to extirpation by 1900; reintroduced onto Guadalupe in 1928, and viable population still extant there. Presently known from Brewster, Culberson, Jeff Davis, and Hudspeth counties (Schmidly 2004). The native subspecies was *C. e. merriami* Nelson 1902; the reintroduced animals are *C. e. nelsoni* Bailey 1935. Elk have been noted from as far east as the Rosillo Mountains and northwestern edge of Big Bend National Park (Yancey et al. 2006). In addition, the authors recently have observed elk in Presidio County.

\**Cervus nippon* (sika deer).—Native of Orient that occurs in Texas primarily in central and southern parts of state (Schmidly 2004).

*Odocoileus hemionus* (mule deer).—Occurs over most of Trans-Pecos and Panhandle regions of Texas and in some areas immediately east thereof, partly as a result of reintroductions (Schmidly 2004). The subspecies is *O. h. crooki* (Mearns 1897).

*Odocoileus virginianus* (white-tailed deer).—Distributed in suitable wooded and brushy habitats throughout state (Schmidly 2004). Originally, the subspecies included *O. v. carminis* (Goldman and Kellogg 1940) known only from the Big Bend area, *O. v. macroura* (Rafinesque 1817) in the extreme northeastern corner of the state, *O. v. mcilhennyi* (F. W. Miller 1928) along the Gulf Coast, and *O. v. texana* (Mearns 1898) throughout the central part of Texas. Native animals of the subspecies *O. v. mcilhennyi* and *O. v. macroura* were eliminated in eastern Texas; the area was restocked with individuals of *O. v. texana* (see Schmidly 1983, 2004).

**Family Antilocapridae**  
(pronghorn)

*Antilocapra americana* (pronghorn).—Formerly known in western two-thirds of Texas. Currently found only in scattered herds in north-central and western parts of state, especially in Trans-Pecos region and western part of Edwards Plateau (Schmidly 2004). The subspecies are *A. a. americana* (Ord 1815) in the Panhandle and *A. a. mexicana* Merriam 1901 in western and central Texas.

**Family Bovidae**  
(bovids)

\**Boselaphus tragocamelus* (nilgai).—Native of India and Pakistan; now free-living in south-central and southern Texas, especially in Kenedy and Willacy counties (Schmidly 2004).

*Bos bison* (American bison).—Before extirpation, ranged throughout state except in dense woods of Big Thicket area. Now present in Texas only as captive herds in Caprock Canyons State Park in the Panhandle, as well as on some private ranches (Schmidly 2004). The subspecies is *B. b. bison* (Linnaeus 1758).

*Ovis canadensis* (mountain sheep).—Extirpated from desert mountain ranges in Trans-Pecos Texas; reintroduced, however, into this area where there now is an extant population (Schmidly 2004). The native subspecies was *O. c. mexicana* Merriam 1901, but some introductions of other subspecies have been made (Schmidly 2004).

\**Ammotragus lervia* (Barbary sheep or aoudad).—Native of North Africa; first introduced into Panhandle

of Texas in 1957-1958. Herds now exist on much of eastern edge of Llano Estacado, parts of Edwards Plateau, as well as the Rolling Plains, Post Oak Savannah, South Texas Plains, and Trans-Pecos regions (Schmidly 2004).

\**Antilope cervicapra* (blackbuck).—Native to India and Pakistan; now occurs in Texas, but relatively few are found outside controlled areas (Schmidly 2004).

## ORDER PERISSODACTYLA—ODD-TOED UNGULATES

### Family Equidae (horses and asses)

\**Equus asinus* (burro or feral ass).—Populations of feral burros are fairly common over the desert regions of the southwestern United States, but they are not well established in Texas. Yancey (1997) reported sighting a single individual, in Presidio County, between Alamito Creek and the Cienega Mountains of

Big Bend Ranch State Park. More recently, Stangl et al. (2007) reported a small group of 8-10 individuals on property that straddles the Brewster-Presidio county line. Other groups of feral asses are known from along the Rio Grande from Candelaria, south and east to Black Gap Wildlife Management Area, including Big Bend National Park. A somewhat larger herd (more than 50 individuals) is known to inhabit the southern reaches of Big Bend Ranch State Park.

## ORDER RODENTIA—RODENTS

### Family Sciuridae (squirrels and allies)

*Neotamias canipes* (gray-footed chipmunk).—We follow Baker et al. (2003) in the use of *Neotamias* as the correct genus. This squirrel is known from Guadalupe Mountains and Sierra Diablo in Culberson County (Schmidly 2004). The subspecies is *N. c. canipes* (Bailey 1902).

*Ammospermophilus interpres* (Texas antelope squirrel).—Recorded from western and southern parts of Trans-Pecos region, and eastward at least to Crane, Crockett, Reagan, Upton, and Val Verde counties. Found as far north as Gaines County (Schmidly 2004). *A. interpres* (Merriam 1890) is a monotypic species.

*Spermophilus mexicanus* (Mexican ground squirrel).—Known from approximately western half of Texas, excluding Panhandle, and southward on Rio Grande Plains (Schmidly 2004). The subspecies is *S. m. parvidens* Mearns 1896.

*Spermophilus spilosoma* (spotted ground squirrel).—Known from approximately western half of Texas, excluding most of Edwards Plateau, and southward to the Rio Grande Plains (Schmidly 2004). The subspecies are *S. s. annectens* Merriam 1893 in the southern part of the state, *S. s. canescens* Merriam 1890 in the western Trans-Pecos, and *S. s. marginatus* Bailey 1890 in the remainder of the range.

*Spermophilus tridecemlineatus* (thirteen-lined ground squirrel).—Recorded from northwestern part of state and in a corridor in east-central Texas southward to Gulf Coast (Schmidly 2004). The subspecies are *S. t. arenicola* (Howell 1928) in the Panhandle and adjacent areas to the south, and *S. t. texensis* Merriam 1898 elsewhere within its distribution in the state.

*Spermophilus variegatus* (rock squirrel).—Known from Trans-Pecos and south-central part of state (Schmidly 2004). The subspecies are *S. v. buckleyi* Slack 1861 in south-central Texas and *S. v. grammurus* (Say 1823) to the west.

*Cynomys ludovicianus* (black-tailed prairie dog).—Occurs or once occurred in western half of state north of Rio Grande Plains; easternmost records from Montague and Tarrant counties in northeast, and Bexar County in south. Now extirpated over parts of former range (Schmidly 2004). The subspecies are *C. l. arizonensis* Mearns 1890 in the Trans-Pecos and *C. l. ludovicianus* (Ord 1815) elsewhere.

*Sciurus carolinensis* (eastern gray squirrel).—Native distribution includes eastern third of state. A population was established in the 1970s in Lubbock, and there is an extralimital record in Cooke County (Schmidly 2004). The subspecies is *S. c. carolinensis* Gmelin 1788.

*Sciurus niger* (eastern fox squirrel).—Occurs in suitable habitats in eastern three-quarters of Texas; introduced at some places outside native range (Schmidly 2004). The subspecies are *S. n. limitis* Baird 1855 in most of the western part of the range in the state, *S. n. ludovicianus* Custis 1806 in the east, and *S. n. rufiventer* E. Geoffroy St.-Hilaire 1803, which occurs in the Canadian River drainage and adjacent areas of northwestern and extreme north-central Texas.

*Glaucomys volans* (southern flying squirrel).—Known from wooded areas in eastern third of Texas as far south as Brazoria County (Schmidly 2004). The subspecies is *G. v. texensis* Howell 1915.

### Family Geomyidae (pocket gophers)

*Thomomys bottae* (Botta's pocket gopher).—Recorded from much of Trans-Pecos Texas, eastward across the Edwards Plateau to Mason County (Schmidly 2004). Ten subspecies have been recognized in Texas, eight restricted to the Trans-Pecos region: *T. b. baileyi* Merriam 1901; *T. b. guadalupensis* Goldman 1936; *T. b. lachuguilla* Bailey 1902; *T. b. limpiae* Blair 1939; *T. b. pervarius* Goldman 1938; *T. b. scotophilus* Davis 1940; *T. b. spatirosus* Goldman 1938; and *T. b. texensis* Bailey 1902. Additionally, *T. b. limitaris* Goldman 1936 occurs in the eastern Trans-Pecos and eastward across the Pecos River onto the western part of the Edwards Plateau, and *T. b. confinalis* Goldman 1936 is found in areas of the Edwards Plateau further to the east.

*Geomys arenarius* (desert pocket gopher).—Known only from El Paso County (Schmidly 2004). The subspecies is *G. a. arenarius* Merriam 1895.

*Geomys attwateri* (Attwater's pocket gopher).—Recorded from south-central part of eastern Texas, from Milam County southward to Matagorda and San Patricio counties, and westward to Frio County (Schmidly 2004). *G. attwateri* Merriam 1895 is a monotypic species.

*Geomys breviceps* (Baird's pocket gopher).—Occurs in eastern fourth of state. Reported from Boone County in northeast, south to Jefferson County, southwest along Gulf Coast to Brazoria County, thence northwest to Wise and Cooke Counties (Schmidly 2004). The subspecies in Texas is *G. b. sagittalis* Merriam 1895.

*Geomys bursarius* (plains pocket gopher).—Reported from northwestern and north-central Texas, south to Runnels and Midland counties, and eastward to McLennan and Grayson counties (Schmidly 2004). Two subspecies currently are thought to occur in the state—*G. b. jugossicularis* Hooper 1940 in the extreme northwestern part of the Panhandle, and *G. b. major* Davis 1940 over the remainder of the species' distribution in Texas.

*Geomys knoxjonesi* (Jones' pocket gopher).—Known in Texas from southwestern part of Llano Estacado and adjacent areas immediately to the south; also known from adjoining southeastern New Mexico (Schmidly 2004). *Geomys knoxjonesi* Baker and Genoways 1975 is a monotypic species.

*Geomys personatus* (Texas pocket gopher).—Known in southern part of state from two isolated populations, one in Val Verde and Kinney counties, the other spreading from La Salle County in the northwest to Karnes County in the northeast, and down to Cameron County at the southern tip of Texas (Schmidly 2004). Six subspecies presently are recognized: *G. p. davisi* Williams and Genoways 1981 in the Rio Grande Valley in western Webb and Zapata counties; *G. p. fallax* Merriam 1895 from Nueces Bay northward to Karnes County; *G. p. fuscus* Davis 1940, known only from Kinney and Val Verde counties; *G. p. maritimus*

Davis 1940 in Kleberg and Nueces counties; *G. p. megapotamus* Davis 1940 from La Salle County southward to the south side of Baffin Bay and to the Rio Grande; and *G. p. personatus* True 1889 on Mustang and Padre islands.

*Geomys streckeri* (Strecker's pocket gopher).—Known only from Dimmit and Zavala counties in South Texas (Schmidly 2004). *Geomys streckeri* Davis 1940 is a monotypic species.

*Geomys texensis* (Llano pocket gopher).—Occurs in Texas as two disjunct populations; one located in Coleman, McCulloch, San Saba, Lampasas, Gillespie, Llano, Blanco, Kimble, and Mason counties on the Edwards Plateau, the other restricted to Medina, Uvalde, and Zavala counties of south Texas (Schmidly 2004). The Edwards Plateau population is regarded as *Geomys texensis texensis* Merriam 1895, whereas the south Texas population is considered *Geomys texensis bakeri* (Smolen, Pitts, and Bickham 1993).

*Cratogeomys castanops* (yellow-faced pocket gopher).—Found in western third of state from Panhandle southward to Val Verde County and throughout Trans-Pecos Texas; isolated populations recorded from Cameron and Maverick counties along the Rio Grande (Schmidly 2004). Seven subspecies currently are thought to occur in the state: *C. c. angusticeps* Nelson and Goldman 1934, known only from the vicinity of Eagle Pass, Maverick County; *C. c. clarkii* (Baird 1855) from the Big Bend and much of the southern Trans-Pecos area; *C. c. dalquesti* Hollander 1990, which occurs in west-central Texas to the north of Edwards Plateau but southeast of the Llano Estacado; *C. c. lacrimalis* Nelson and Goldman 1934 from the New Mexican border south in the Pecos drainage to Reeves, Ward, and Winkler counties; *C. c. parviceps* (Russell 1968) in the far western Trans-Pecos; *C. c. perplanus* Nelson and Goldman 1934 from the High Plains of northwestern Texas; and *C. c. tamaulipensis* Nelson and Goldman 1934, known only from Cameron County.

#### Family Heteromyidae (pocket mice and kangaroo rats)

*Perognathus flavescens* (plains pocket mouse).—Recorded in Texas from El Paso County and from High Plains and adjacent areas in northwestern part

of state, east to Wilbarger County and south at least to Midland and Ward counties (Schmidly 2004). The subspecies are *P. f. copei* Rhoads 1894 in northwestern Texas and *P. f. melanotis* Osgood 1900 in the western Trans-Pecos.

*Perognathus flavus* (silky pocket mouse).—Found in northern part of Panhandle, as well as the Trans-Pecos (Schmidly 2004). The subspecies in Texas probably is *P. f. flavus* Baird 1855. We acknowledge the need for continued systematic and biogeographic work on this species and its congener *P. merriami* in Texas and surrounding areas. See Brant and Lee (2006) for some additional insights.

*Perognathus merriami* (Merriam's pocket mouse).—Found in western two-thirds of state, but absent from northern Panhandle and extreme western Trans-Pecos (Schmidly 2004). The subspecies in Texas probably are *P. m. gilvus* Osgood 1900 in the western part of the Panhandle, Trans-Pecos, and western Edwards Plateau and *P. m. merriami* J. A. Allen 1892 in the eastern part of the Panhandle, eastern Edwards Plateau, and South Texas. As mentioned in the previous account, the systematic relationship of this taxon and *P. flavus* is not fully resolved.

*Chaetodipus eremicus* (Chihuahuan Desert pocket mouse).—Ranges throughout Trans-Pecos Texas, eastward at least to Crockett and Val Verde counties (Schmidly 2004). *Chaetodipus eremicus* (Mearns 1898) is a monotypic species.

*Chaetodipus hispidus* (hispid pocket mouse).—Occurs throughout Texas save for extreme southeastern part (Schmidly 2004). The subspecies are *C. h. hispidus* (Baird 1858) in the east, *C. h. paradoxus* (Merriam 1889) in the western one-third of the state, and *C. h. spilotis* in a limited area of north-central Texas. The systematics of this species is in need of review.

*Chaetodipus intermedius* (rock pocket mouse).—Reported only from western part of the Trans-Pecos (Schmidly 2004). The subspecies is *C. i. intermedius* (Merriam 1889).

*Chaetodipus nelsoni* (Nelson's pocket mouse).—Occurs in southern and central Trans-Pecos region, and just east of Pecos River in Upton and Val Verde

counties, southeast along Rio Grande to Webb County (Schmidly 2004). The subspecies is *C. n. canescens* (Merriam 1904).

*Dipodomys compactus* (Gulf Coast kangaroo rat).—Occurs in South Texas from Bexar and Gonzales counties, south to Rio Grande. Also known from Mustang and Padre islands (Schmidly 2004). The two recognized subspecies are *D. c. compactus* True 1889 on the barrier islands and *D. c. sennetti* (J. A. Allen 1891) on the mainland.

*Dipodomys elator* (Texas kangaroo rat).—Occurs in north-central Texas, from Cottle and Motley counties in west to Montague County in east (Schmidly 2004). *D. elator* Merriam 1894 is a monotypic species.

*Dipodomys merriami* (Merriam's kangaroo rat).—Ranges throughout Trans-Pecos region; known east of Pecos River to Gaines County in the north and Dimmit County in the south (Schmidly 2004). The subspecies is *D. m. ambiguus* Merriam 1890.

*Dipodomys ordii* (Ord's kangaroo rat).—Known from western, southwestern, and southern parts of state (Schmidly 2004). The subspecies in Texas are: *D. o. medius* Setzer 1949 from the central Llano Estacado southward east of the Pecos River to Crane, Crockett, and Upton counties, and east to Jones County; *D. o. obscurus* (J. A. Allen 1903) in the western, central, and southern parts of the Rio Grande Plains and in the southern Big Bend area; *D. o. ordii* Woodhouse 1853 in most of the Trans-Pecos region; and *D. o. richardsoni* (J. A. Allen 1891) from the Panhandle and adjacent areas southward at least to Floyd County and east to Montague County.

*Dipodomys spectabilis* (banner-tailed kangaroo rat).—Occurs in western and central Trans-Pecos region, and reported east of Pecos River as far east as Reagan County, and as far north as Lubbock County (Schmidly 2004). The subspecies is *D. s. baileyi* Goldman 1923.

*Liomys irroratus* (Mexican spiny pocket mouse).—Known from seven counties in extreme southern tip of Texas (Schmidly 2004). The subspecies is *L. i. texensis* Merriam 1902.

### Family Castoridae (beavers)

*Castor canadensis* (American beaver).—Found over most of state where suitable aquatic habitat prevails; absent from Llano Estacado and some adjacent areas and from much of Trans-Pecos region (Schmidly 2004). The subspecies are *C. c. mexicanus* Bailey 1913 along the Rio Grande and its immediate tributaries and *C. c. texensis* Bailey 1905 to the north.

### Family Muridae (mice, rats and voles)

*Oryzomys couesi* (Coues' rice rat).—Known in state only from Cameron and Hidalgo counties of the lower Rio Grande Valley (Schmidly 2004). The subspecies is *O. c. aquaticus* J. A. Allen 1891.

*Oryzomys palustris* (marsh rice rat).—Distributed in eastern part of Texas from Denton County in the north to Cameron County in the south (Schmidly 2004). The subspecies is *O. p. texensis* J. A. Allen 1894.

*Reithrodontomys fulvescens* (fulvous harvest mouse).—Occurs throughout eastern half of state, as well as eastern Panhandle, southern Edwards Plateau, and southern Trans-Pecos (Schmidly 2004). The subspecies are *R. f. aurantius* J. A. Allen 1895 in the eastern part of the state; *R. f. canus* Benson 1939 in the eastern and southern Trans-Pecos; *R. f. intermedius* J. A. Allen 1895 on the Rio Grande Plains and in adjacent areas of southern Texas; and *R. f. laceyi* J. A. Allen 1896 in the central part of the state.

*Reithrodontomys humulis* (eastern harvest mouse).—Known from eastern part of state, west to Fort Bend, Hunt, and McLennan counties (Schmidly 2004). The subspecies is *R. h. merriami* J. A. Allen 1895.

*Reithrodontomys megalotis* (western harvest mouse).—Occurs in western Texas, from Panhandle southward to Trans-Pecos region (Schmidly 2004). The subspecies are *R. m. aztecus* J. A. Allen 1893 in the northern part of the range and *R. m. megalotis* (Baird 1858) to the south.

*Reithrodontomys montanus* (plains harvest mouse).—Found in western and central parts of state, east and southeast at least to Madison and Bexar counties, respectively (Schmidly 2004). The subspecies are *R. m. griseus* Bailey 1905 throughout most of the range in Texas and *R. m. montanus* (Baird 1855) in the Trans-Pecos region.

*Peromyscus attwateri* (Texas mouse).—Known from central part of state, from Cooke County south to Bexar County in the east, and Hemphill County south to Ward County in the west (Schmidly 2004). *P. attwateri* (J. A. Allen 1893) is a monotypic species.

*Peromyscus boylii* (brush mouse).—Occurs in Trans-Pecos region of Texas (Schmidly 2004). The subspecies is *P. b. rowleyi* (J. A. Allen 1893).

*Peromyscus eremicus* (cactus mouse).—Recorded from Trans-Pecos region southeastward along Rio Grande to Webb County (Schmidly 2004). The subspecies is *P. e. eremicus* (Baird 1858).

*Peromyscus gossypinus* (cotton mouse).—Found in woodlands in eastern fourth of state, west to Fannin County in the north and Limestone, Brazos, and Harris counties in the south (Schmidly 2004). The subspecies is *P. g. megacephalus* (Rhoads 1894).

*Peromyscus leucopus* (white-footed mouse).—Statewide in distribution except northeastern coastal bend (Schmidly 2004). The subspecies, which are in need of systematic review, are *P. l. leucopus* (Rafinesque 1818) in the eastern third of the state, *P. l. texanus* (Woodhouse 1853) in central Texas (west to Brewster, Terrell, and Val Verde counties), and *P. l. tornillo* Mearns 1896 in the Panhandle and much of the Trans-Pecos.

*Peromyscus maniculatus* (deer mouse).—Occurs statewide, but uncommon in eastern, southern, and coastal areas (Schmidly 2004). The subspecies are as follows: *P. m. blandus* Osgood 1904 in the Trans-Pecos and areas immediately to the east; *P. m. luteus* Osgood 1905 in the Panhandle, probably south to Winkler County; *P. m. ozarkiarum* Black 1935 which occurs sympatrically with the following race in Cooke, Denton, and Grayson counties; and *P. m. pallescens* J. A. Allen 1896 in the eastern part of the range in Texas.

*Peromyscus nasutus* (northern rock mouse).—Known only from mountainous parts of western and southern Trans-Pecos Texas (Schmidly 2004). The subspecies are *P. n. nasutus* (J. A. Allen 1891) from Culberson, Jeff Davis, Brewster, and Presidio counties, and *P. n. penicillatus* Mearns 1896 from El Paso County. The subspecies *nasutus* also has been taken along the breaks of the Llano Estacado in eastern New Mexico, but a few miles west of the Texas border (Choate 1997).

*Peromyscus pectoralis* (white-ankled mouse).—Recorded from most of Trans-Pecos region west to Culberson and Hudspeth counties, and northeastward through central part of state to Oklahoma border. Eastern limits of range occur along Balcones Escarpment from Cooke County in the north to Bexar County in the south (Schmidly 2004). The subspecies in Texas is *P. p. laceianus* Bailey 1906.

*Peromyscus truei* (piñon mouse).—Occurs in state as three disjunct populations; one from the eastern breaks of the Llano Estacado in Armstrong, Briscoe, and Randall counties, another from the western breaks of the Llano Estacado in Deaf Smith County just to the east of the New Mexican border, and the third from the Guadalupe Mountains, Culberson County (Schmidly 2004). The subspecies are *P. t. comanche* Blair 1943 from the eastern Llano and *P. t. truei* (Shufeldt 1885) from the other two localities.

*Ochrotomys nuttalli* (golden mouse).—Occurs in woodlands of extreme eastern Texas, west at least to Anderson and Madison counties (Schmidly 2004). The subspecies is *O. n. lisae* Packard 1969.

*Baiomys taylori* (northern pygmy mouse).—Distributed over much of state excluding Trans-Pecos and extreme northeastern Texas (Schmidly 2004). The subspecies are *B. t. taylori* (Thomas 1897) over most of the range in Texas and *B. t. subater* (Bailey 1905) in the southeast.

*Onychomys arenicola* (Mearns' grasshopper mouse).—Ranges throughout all of Trans-Pecos Texas except southeastern part; recorded east of Pecos River from Crockett, Ward, and Winkler counties (Schmidly 2004). The subspecies is *O. a. arenicola* Mearns 1896.

*Onychomys leucogaster* (northern grasshopper mouse).—Known from western Trans-Pecos region and throughout west Texas south to Gulf Coast and Rio Grande (Schmidly 2004). The subspecies are *O. l. albescens* Merriam 1904 in El Paso and Hudspeth counties, *O. l. arcticeps* Rhoads 1898 in the Panhandle and adjacent areas to the east, south to Crockett and Pecos counties, and *O. l. longipes* Merriam 1899 from Tom Green and Terrell counties southward to the Rio Grande and southeastward to Nueces County.

*Sigmodon fulviventer* (tawny-bellied cotton rat).—Known from a single locality in Davis Mountains, Jeff Davis County (Schmidly 2004). The subspecies is *S. f. dalquesti* Stangl 1992.

*Sigmodon hispidus* (hispid cotton rat).—Known to occur statewide (Schmidly 2004). The subspecies are *S. h. berlandieri* Baird 1855 from the Panhandle southward to the Trans-Pecos region and the Rio Grande Plains, and *S. h. texianus* (Audubon and Bachman 1853) in the eastern and central parts of Texas. Southwestern races of this species are in need of systematic review.

*Sigmodon ochrognathus* (yellow-nosed cotton rat).—Typically found at higher elevations in central Trans-Pecos region (Schmidly 2004). *S. ochrognathus* Bailey 1902 is a monotypic species

*Neotoma floridana* (eastern woodrat).—Recorded from eastern part of Texas, south to Victoria County and westward to Edwards and Kerr counties (Schmidly 2004). The subspecies are *N. f. attwateri* Mearns 1897, which occupies the northern and western parts of the range in the state, *N. f. rubida* Bangs 1898 in the southeast, and *N. f. illinoensis* Howell 1910 in extreme northeastern Texas.

*Neotoma leucodon* (eastern white-throated woodrat).—Found in Panhandle and broken country south of Red River, southeastward to Llano and Bexar counties, thence westward throughout much of southwestern part of state (Schmidly 2004). Two subspecies currently are recognized in Texas; *N. l. warreni* Merriam 1980 in the Panhandle, and *N. l. robusta* Blair 1939 elsewhere.

*Neotoma mexicana* (Mexican woodrat).—Known in Texas only from mountainous areas in Brewster, Cul-

berson, Hudspeth, Jeff Davis, and Presidio counties of Trans-Pecos region (Schmidly 2004). The subspecies is *N. m. mexicana* Baird 1855.

*Neotoma micropus* (southern plains woodrat).—Found in western two thirds of Texas, eastward to Johnson County in north and Gulf Coast in south (Schmidly 2004). The subspecies are *N. m. canescens* J. A. Allen 1891 in the western part of the range in the state, and *N. m. micropus* Baird 1855 in the east. Populations of this woodrat are in need of taxonomic review.

\**Rattus norvegicus* (Norway rat).—Widespread in Texas in and near human habitations, but not as common as *R. rattus* in urban settings in the southern half of state (Schmidly 2004).

\**Rattus rattus* (roof rat).—Common in urban environs throughout most of Texas, and sometimes found in or around human habitations in rural areas (Schmidly 2004).

\**Mus musculus* (house mouse).—Statewide in distribution, usually in close association with humans, but feral populations also are known (Schmidly 2004).

*Microtus mogollonensis* (Mogollon vole).—Formerly known as the Mexican vole, *M. mexicana*, we follow Frey (1999) in the use of *M. mogollonensis*. This vole has been recorded only from higher elevations in Guadalupe Mountains of Culberson County (Schmidly 2004). The subspecies is *M. m. mogollonensis* (Mearns 1890).

*Microtus ochrogaster* (prairie vole).—Known in Texas only from Hardin County, in the southeast and Hansford and Lipscomb in northern Panhandle (Schmidly 2004). McCaffrey et al. (2003) reported prairie voles from Carson County, and remains of voles from owl pellets from Dallam and Sherman counties in the Texas Panhandle. Poole and Matlock (2007) reported remains of this vole in owl pellets from Armstrong and Ochiltree counties, also in the Texas Panhandle. According to Schmidly (1983, 2004), this species may now be extinct in eastern Texas. The subspecies there was *M. o. ludovicianus* Bailey 1902. The subspecies in Texas Panhandle probably is *M. o. taylori* Hibbard and Rinker 1943.

*Microtus pinetorum* (woodland vole).—Found in eastern and central parts of state west to Montague County and south at least to Kerr County in the west and Newton County in the east. The subspecies are *M. p. auricularis* Bailey 1898 in the southern part of the range in Texas, and *M. p. nemoralis* Bailey 1898 to the north.

*Ondatra zibethicus* (common muskrat).—Occurs only in suitable aquatic habitats in northern, southeastern, and southwestern parts of state (Schmidly 2004). The subspecies are *O. z. cinnamominus* (Hollister 1910) in the north, *O. z. ripensis* (Bailey 1902) along the Rio Grande and its immediate tributaries in the Trans-Pecos region, and *O. z. rivaliculus* (Bangs 1895) on the Gulf Coastal Plain as far west as Galveston County.

### Family Erethizontidae (New World porcupines)

*Erethizon dorsatum* (porcupine).—Known from western half of state east to Bosque County. Extralimital record exists from Van Zandt (Schmidly 2004). The subspecies in Texas is *E. d. epixanthum* Brandt 1835.

### Family Myocastoridae (myocastorids)

\**Myocastor coypus* (nutria).—Found in aquatic habitats in eastern two-thirds of state, west at least to Pecos River (Schmidly 2004). One of the authors (RWM) recently collected 10 individuals from near Rio Grande Village, Big Bend National Park, Brewster County.

## ORDER LAGOMORPHA—PIKAS, HARES AND RABBITS

### Family Leporidae (hares and rabbits)

*Sylvilagus aquaticus* (swamp rabbit).—Found in eastern half of state, west to Montague, Eastland, Brown, Kerr, Bandera, and Medina counties (Schmidly 2004). *S. aquaticus* (Bachman 1837) is a monotypic species.

*Sylvilagus audubonii* (desert cottontail).—Occupies upland habitats in western half of Texas (Schmidly 2004). The subspecies are *S. a. minor* (Mearns 1896) in the southern Trans-Pecos eastward to Val Verde County, *S. a. neomexicanus* Nelson 1907 in the northern Trans-Pecos and Panhandle, and *S. a. parvulus* (J. A. Allen 1904) from Llano County southward in south-central Texas to the Rio Grande.

*Sylvilagus floridanus* (eastern cottontail).—Occurs throughout state (Schmidly 2004). The subspecies are *S. f. alacer* (Bangs 1896) in eastern Texas, *S.*

*f. chapmani* (J. A. Allen 1899) in the central, southern, and western parts of the state, and *S. f. llanensis* Blair 1938 on the Llano Estacado.

*Sylvilagus robustus* (Davis Mountains cottontail).—This alpine rabbit is known from the Davis, Guadalupe, and Chisos mountains of the Trans-Pecos (Schmidly 2004). *Sylvilagus robustus* (Bailey 1905) is a monotypic species.

*Lepus californicus* (black-tailed jackrabbit).—Found throughout Texas except in Big Thicket area of extreme southeast part of state (Schmidly 2004). Four subspecies have been recorded from the state as follows: *L. c. eremicus* J. A. Allen 1894 in the El Paso area; *L. c. melanotis* Mearns 1890 in the north; *L. c. merriami* Mearns 1896 in the south and southeast; and *L. c. texianus* Waterhouse 1848 on the western Edwards Plateau and in the eastern Trans-Pecos. This species is badly in need of taxonomic review.

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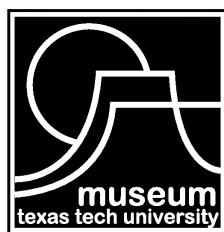
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